## This is a chatting application called hot sockets near you.

With this chatting application, one can run a server and have clients connected to it. The clients will have a graphical user interface. The server is configured to run two channels. Users can connect to only one channel at a time. In the channel they choose a username and after it’s set the user can freely chat with people in that channel. Using /w [name] user can send a private message to other users in the same channel. When the chat window is closed the user is automatically disconnected from the channel but the connection to the server stays. The server will wait for a new username and channel from the client.

Assumptions:

Low amount of traffic (max 50 connections)

Message size 2048 chars.

Users can log in to only one channel at a time.

Restriction:

Username can’t contain ‘:’ or white space.

Transparency is taken care of as users GUI and experience doesn’t change depending on where and how the server is run.

Scalability: the new thread for transactions could be run on anything.

Failure handling: As every connection is handled in its own thread if one of them fails the rest of the user base won’t notice the impact on their service.

Graphical user interface, diagram

Description automatically generated

Figure 1 UML of the project.